

Stroke

Disease Information Packets – Slide Sets



Public Health Services,
Community Health Statistics

8/2010

What is Stroke?

- Stroke occurs when oxygen and nutrients are unable to reach the brain due to blockage or rupture of a blood vessel.
 - When this occurs, the deprived part of the brain begins to die.



Stroke Types

– *Ischemic Stroke:*

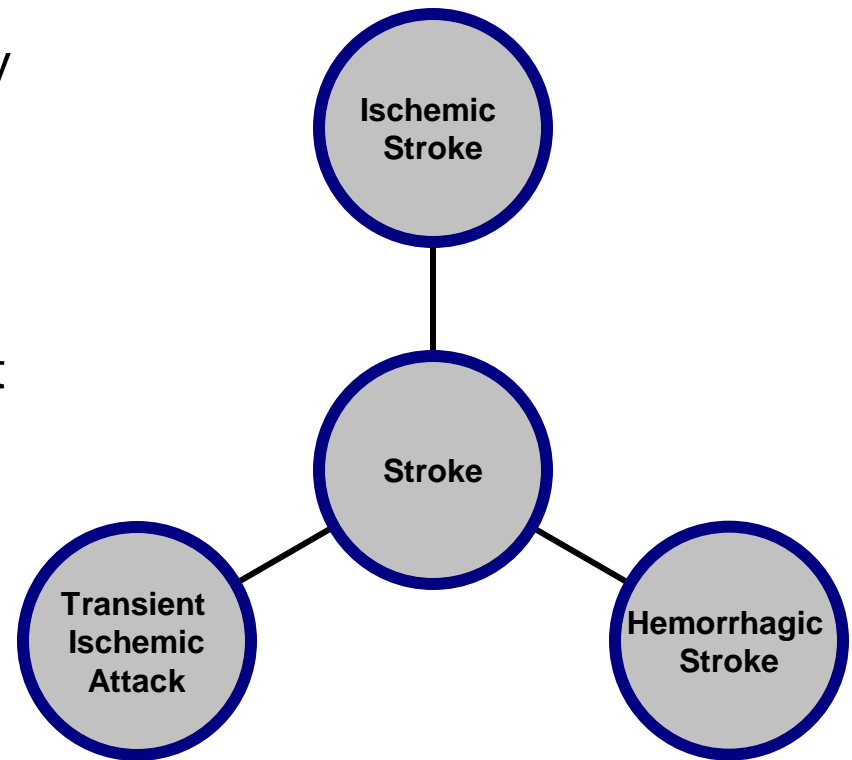
- Accounts for 83% of all strokes
- Occurs when a blood clot or fatty deposit blocks blood flow to the brain.

– *Hemorrhagic Stroke:*

- Accounts for 17% of all strokes
- Occurs when a blood vessel that supplies blood to the brain ruptures and bleeds into the brain, compressing the tissue.

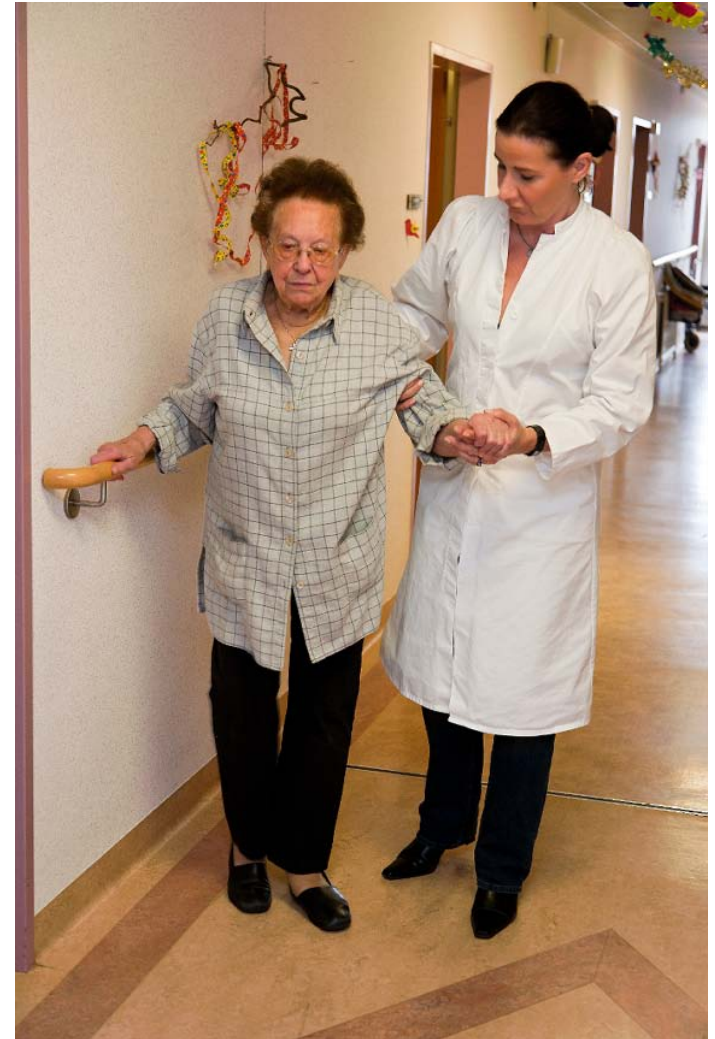
– *Transient Ischemic Attack:*

- A short-term obstruction of a blood vessel that supplies blood to the brain, producing a “warning stroke.”



Physical Effects of Stroke

- Stroke can cause:
 - Death
 - Paralysis
 - Vision Problems
 - Memory Loss
 - Involuntary Muscle Movements
 - Imbalance
 - Pain
 - Speech Difficulties



Demographic Risk Factors

- Age
 - About 75% of stroke deaths occur in people age 65 and older.
 - After the age of 55, the risk of stroke more than doubles every ten years.
- Genetics/Hereditry
 - Stroke can run in families
 - Sickle cell anemia, a genetic blood disorder, increases stroke risk



Demographic Risk Factors

- Gender
 - Stroke risk is higher among males than females at younger, but not older ages.
 - Pregnancy increases stroke risk
 - Women who smoke or use birth control pills, and who have other risk factors, have higher stroke risk.
- Race/ethnicity
 - A greater proportion of African Americans die from strokes, compared to whites.



Social and Behavioral Risk Factors

- High Blood Pressure
 - Individuals with high blood pressure double their lifetime risk of stroke.
- Heart Disease
 - Doubles the risk of stroke
- Atrial Fibrillation
 - Irregular beating of the heart
 - Increases the risk of stroke nearly 5 times
- Transient Ischemic Attacks
 - Treatment can help reduce the risk for a major stroke
- Diabetes
 - Diabetics have 2-4 times the risk of stroke as non-diabetics.



Social and Behavioral Risk Factors

- **High Cholesterol Levels**
 - High cholesterol levels can lead to fat deposits in the arteries.
- **Tobacco Use**
 - The risk of ischemic stroke in smokers is nearly double that of nonsmokers.
- **Heavy Alcohol Consumption**
 - Excessive alcohol consumption can lead to an increase in blood pressure, which increases the risk for stroke.
- **Physical Inactivity**
 - Exercise and physical activity reduces the risk for stroke and stroke death.



National Statistics

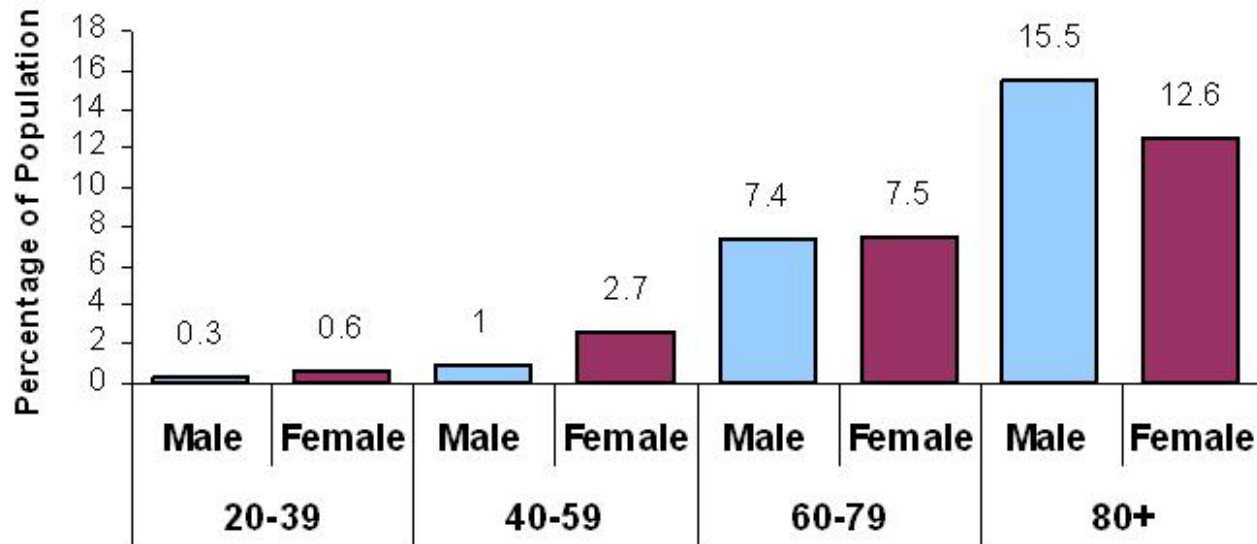
- For 2006, stroke was the 3rd leading cause of death in the United States.
- 750,000 Americans have a new or a recurrent stroke each year.
- On average, someone will have a stroke in the United States every 40 seconds.

Top 10 Leading Causes of Death in the United States, 2006

1. Heart Disease
2. Cancer
3. **Stroke**
4. Respiratory Diseases
5. Accidents (Unintentional Injuries)
6. Alzheimer' Disease
7. Diabetes
8. Influenza and Pneumonia
9. Nephritis & Nephrosis
10. Septicemia

National Statistics

Prevalence of Stroke by Age and Gender, United States, 2003-2006



Source: American Heart Association. Heart Disease and Stroke Statistics – 2010 Update.

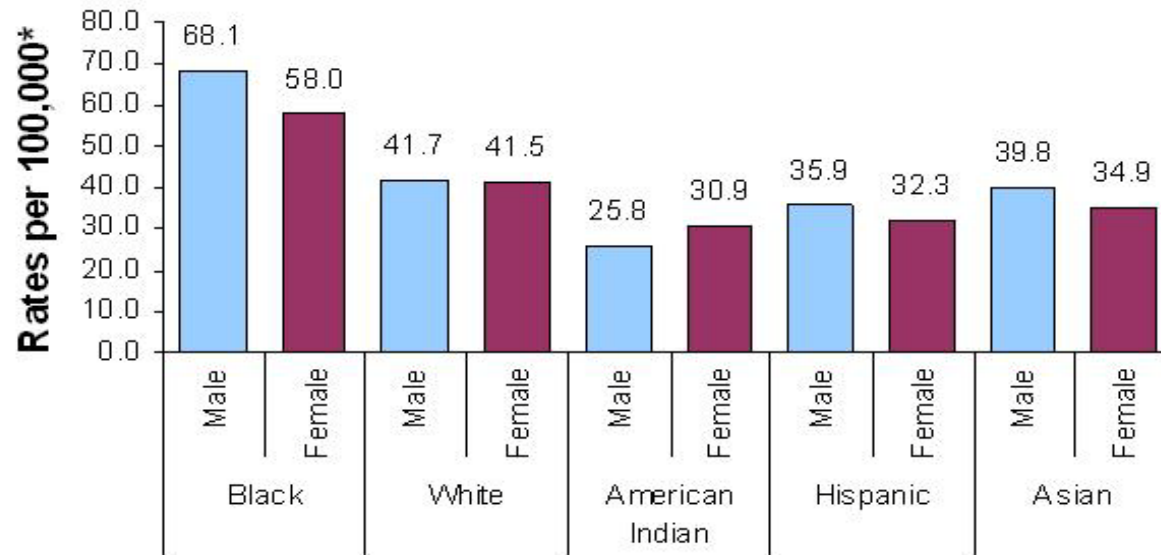
Prepared by County of San Diego (CoSD), Health & Human Services Agency (HHSA), Community Health Statistics, 05/05/2010.

National Disparities

- In 2006, every 6 out of 10 stroke deaths were in women.
- Nearly one in four strokes occur in people under the age of 65.
- The highest death rates due to stroke are in the southeastern United States.
- Blacks have almost twice the risk of first-ever stroke compared to whites.

National Disparities

Age Adjusted Death Rates* for Stroke by Race/Ethnicity and Gender, United States, 2006



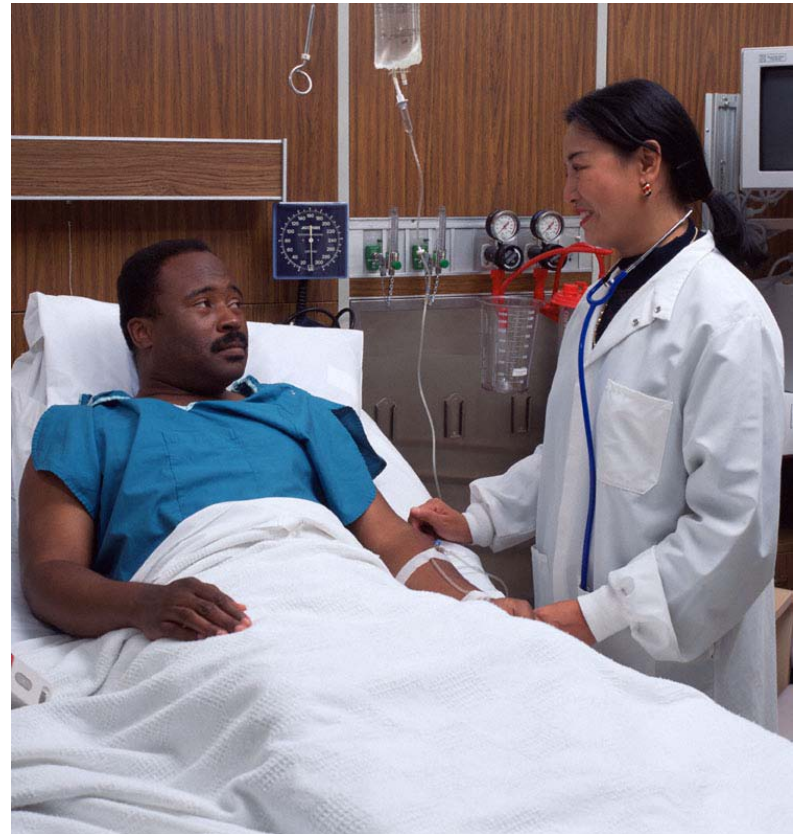
* Age Adjusted Rates are per 100,000 and are based on 2000 U.S. Census data.

Source: National Heart Lung and Blood Institute. 2009 NHLBI Morbidity and Mortality Chart Book.

Prepared by County of San Diego (CoSD), Health & Human Service (HHSA), Community Health Statistics, 05/04/2010.

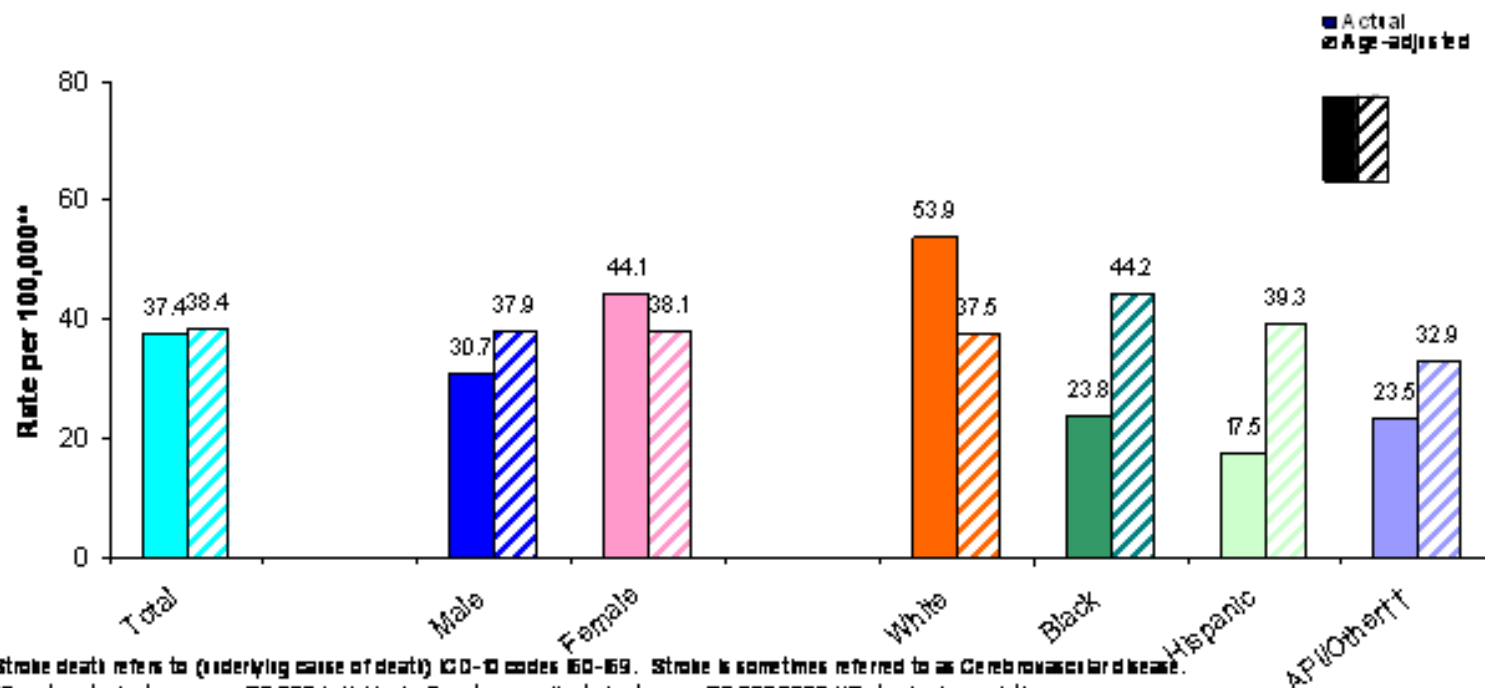
Costs

- Stroke will cost almost \$68.9 billion in 2009.
 - Includes the cost of health care services, medications, and missed days of work



Local Statistics and Disparities

Stroke Deaths*: Actual and Age-adjusted Rates
per 100,000 Residents of San Diego County, 2006**



*Stroke death refers to (underlying cause of death) ICD-10 codes I60-I69. Stroke is sometimes referred to as Cerebrovascular disease.

**County actual rates are per 100,000 individuals. County age-adjusted rates per 100,000 2000 US standard population.

§ Rates not calculated for fewer than 5 events.

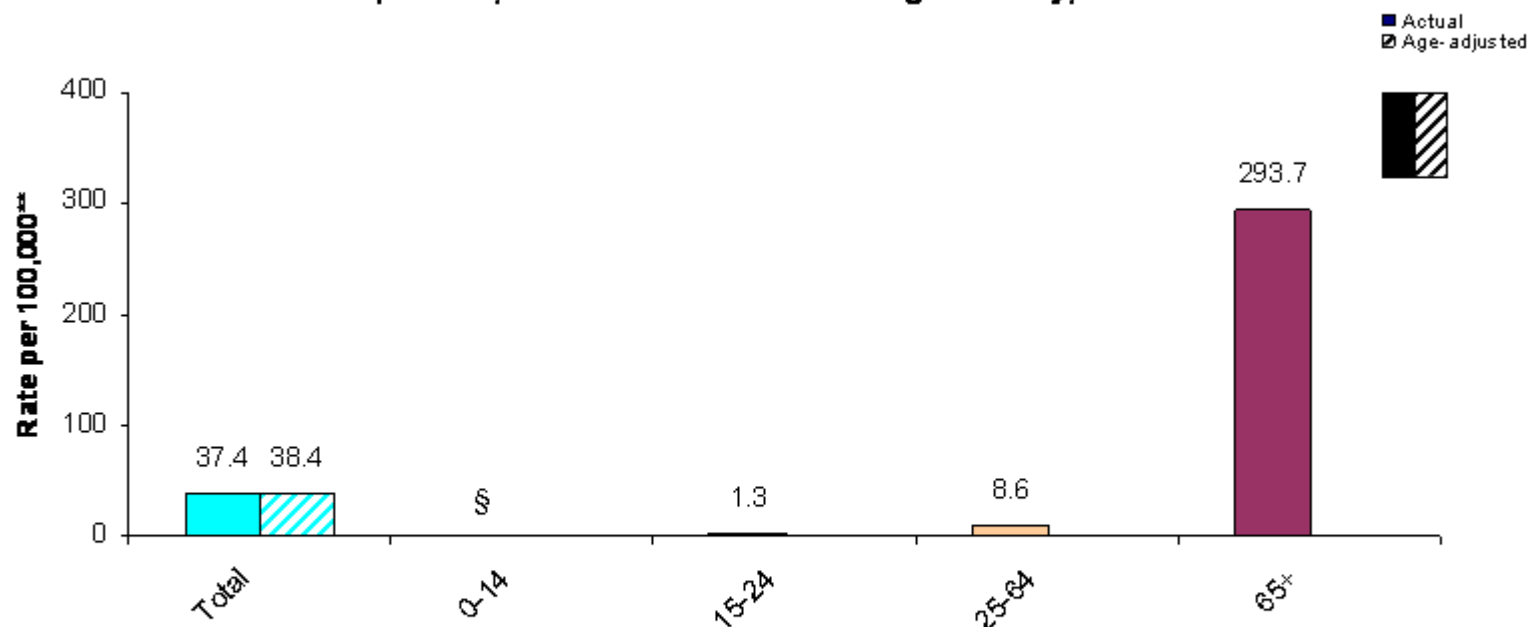
†† API/Other includes Asian, Pacific Islanders, those reporting 2 or more race/ethnicities, other, or had missing information.

Source: Death Statistical Master Files (CADDPH, CoSD HHS Community Epidemiology, 2006; SANDAG, Current Population Estimates, 9/21/2006.

Prepared by County of San Diego (CoSD), Health & Human Services Agency (HHS), Community Health Statistics, 9/29/2008.

Local Statistics and Disparities

Stroke Death* Rates by Age Group
per 100,000 Residents of San Diego County, 2006**



* Stroke death refers to (underlying cause of death) ICD-10 codes I60-I69. Stroke is sometimes referred to as Cerebrovascular disease.

** County actual rates are per 100,000 individuals. County age-adjusted rates per 100,000 2000 US standard population.

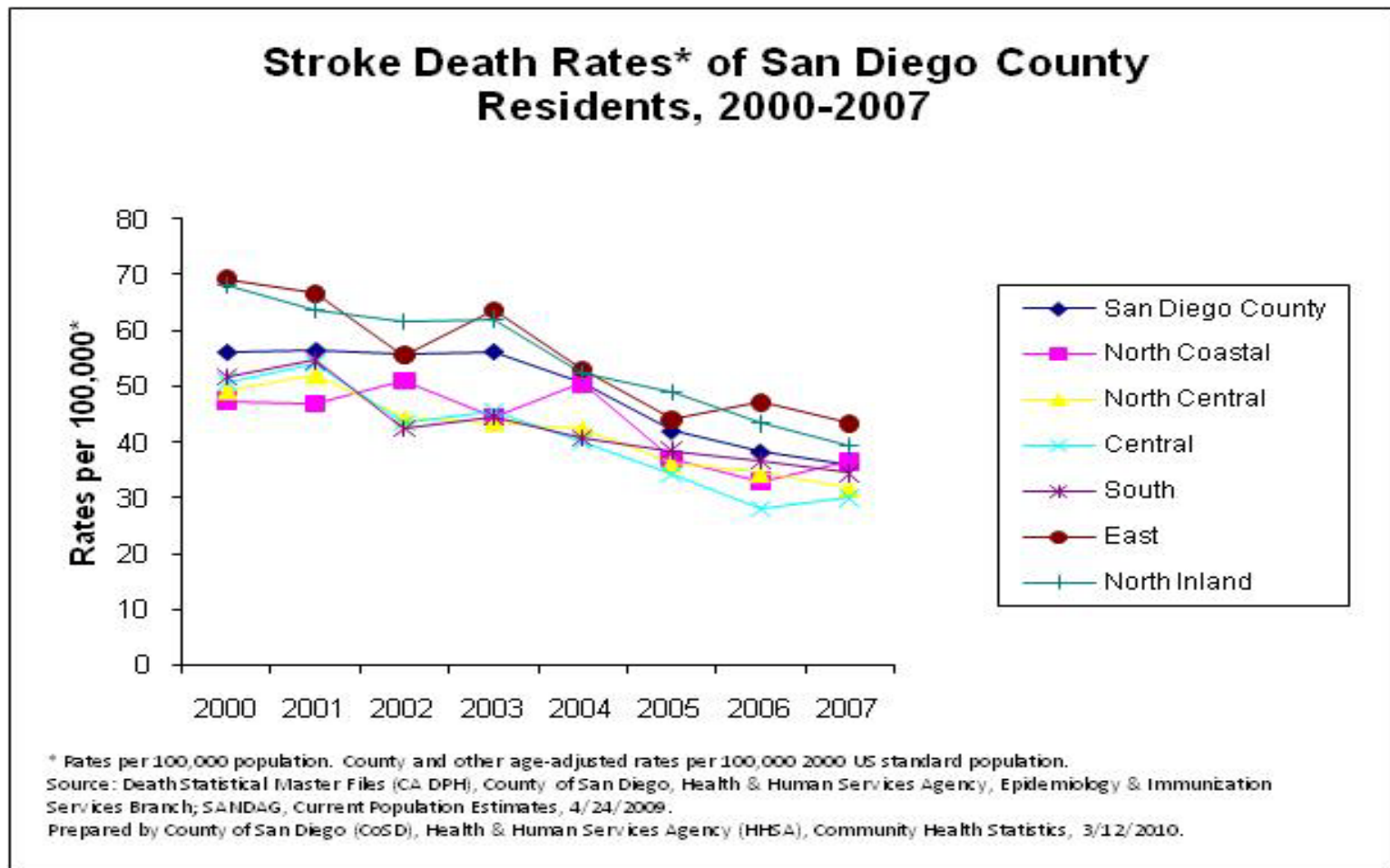
§ Rates not calculated for fewer than 5 events.

†† API/Other includes Asian, Pacific Islanders, those reporting 2 or more race/ethnicities, other, or had missing information.

Source: Death Statistical Master Files (CADPH), CoSD HHSA Community Epidemiology, 2006; SANDAG, Current Population Estimates, 9/27/2006.

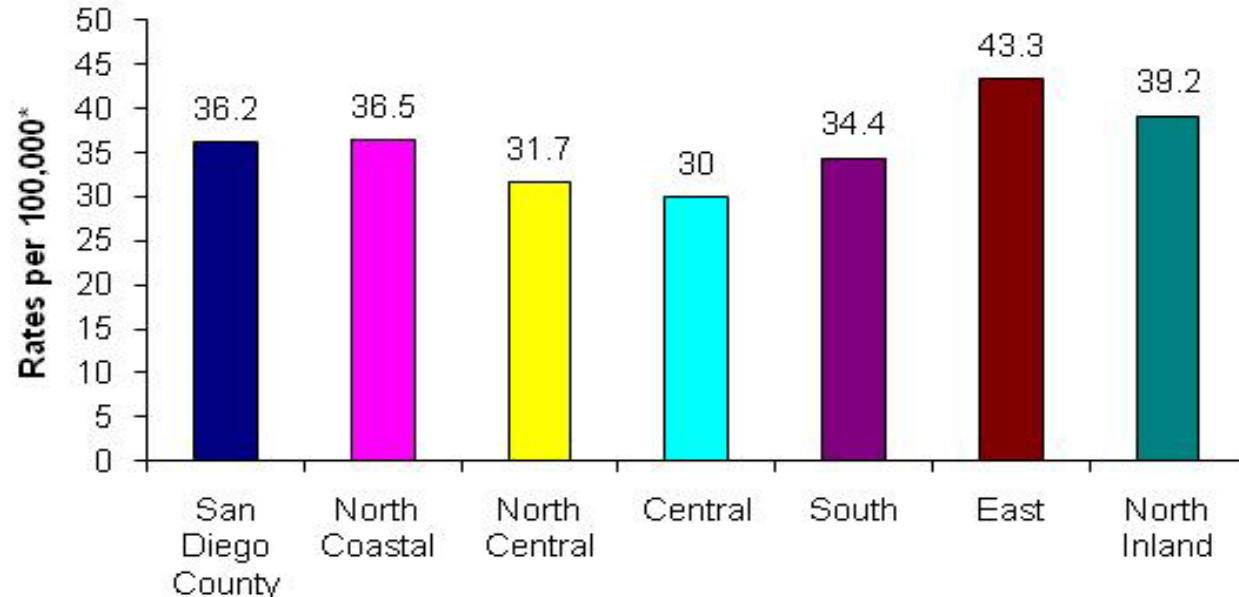
Prepared by County of San Diego (CoSD), Health & Human Services Agency (HHSA), Community Health Statistics, 9/29/2008.

Local Statistics and Disparities



Local Statistics and Disparities

Stroke Death Rates* of San Diego County Residents, 2007



* Rates per 100,000 population. County and other age-adjusted rates per 100,000 2000 US standard population.

Source: Death Statistical Master Files (CA DPH), County of San Diego, Health & Human Services Agency, Epidemiology & Immunization Services Branch; SANDAG, Current Population Estimates, 4/24/2009.

Prepared by County of San Diego (CoSD), Health & Human Services Agency (HHSA), Community Health Statistics, 3/12/2010.

Prevention

- Lower Blood Pressure
- Eat Healthy Foods
- Lower Blood Cholesterol
- Manage Stress
- Moderate Alcohol Consumption
- Exercise
- Avoid Smoking
- Control Blood Sugar

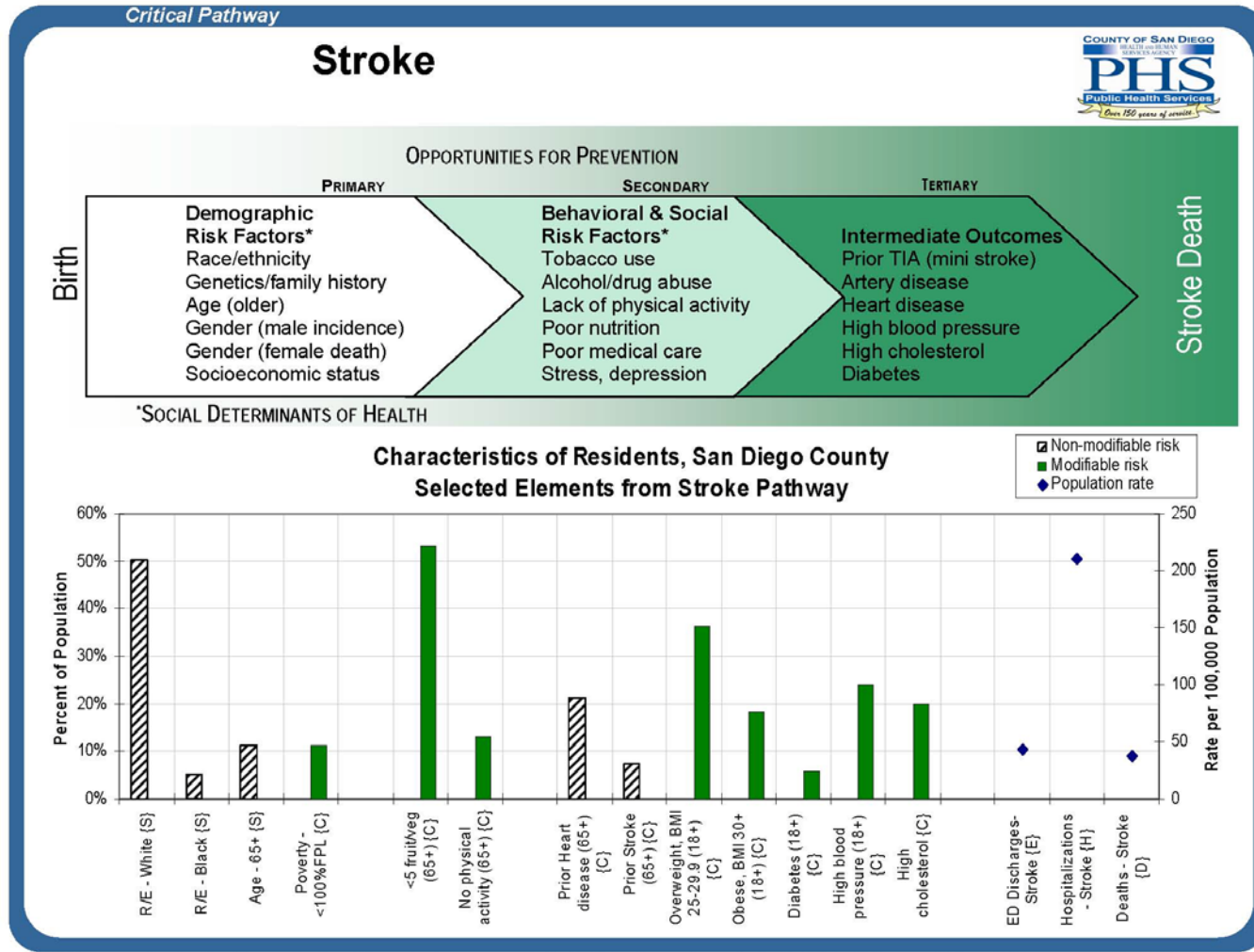


Warning Signs of Stroke

- Sudden numbness or weakness of the face, arm, or leg
 - Sudden confusion, trouble speaking or understanding
 - Sudden trouble walking, dizziness or loss of balance or coordination
 - Sudden trouble seeing in one or both eyes
 - Sudden severe headache with no known cause
 - Sudden chest pain
- If warning signs appear, call 9-1-1 immediately.



Critical Pathway for Stroke



04/09

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Contact Us

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